

## CLAIMS:

1. A transmitter for a tire condition monitoring apparatus located in the tire of a vehicle,  
said transmitter comprising:
  - a measurement device for measuring the condition of the tire, wherein the  
measured condition of the tire includes an internal temperature of the tire;
  - 5 a transmission device for performing wireless communication of data  
indicating the condition of the tire measured by the measurement device; and
  - a transmission controller, said transmission controller controls the  
transmission device in accordance with an operating mode selected from a normal  
mode, in which data transmission is performed a predetermined number of times in a  
10 cycle of a predetermined length of time, and a temperature compensation mode, in  
which data transmission is performed a number of times greater than said  
predetermined number of times in the same cycle, and wherein said transmission  
controller determines whether to shift from the current one of the operating modes to  
the other operating mode by comparing the measured internal temperature of the tire  
15 with a predetermined threshold temperature.
2. The transmitter according to Claim 1, wherein said transmission controller selects the  
normal mode when the measured internal temperature of the tire is lower than the  
threshold temperature, and said transmission controller selects the temperature  
compensation mode when the measured internal temperature of the tire is equal to or  
5 higher than the threshold temperature.

3. The transmitter according to Claim 2, wherein the temperature compensation mode includes a first temperature compensation mode and a second temperature compensation mode in which data transmission is performed a number of times greater than the number of times that data transmission is performed in the first temperature compensation mode.
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4. The transmitter according to Claim 1, wherein the threshold temperature comprises a first threshold temperature and a second threshold temperature higher than the first threshold temperature, and said transmission controller selects the first temperature compensation mode when the measured internal temperature of the tire is equal to or higher than the first threshold temperature and lower than the second threshold temperature, and selects the second temperature compensation mode when the measured internal temperature of the tire is equal to or higher than the second threshold temperature.
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5. A transmitter for a tire condition monitoring apparatus located in the tire of a vehicle,  
said transmitter comprising:
- a measurement device for measuring the condition of the tire, wherein the  
measured condition of the tire includes an internal temperature of the tire;
  - 5 a transmission device for performing wireless communication of data  
indicating the condition of the tire measured by the measurement device; and
  - a transmission controller, said transmission controller controls the  
transmission device in accordance with an operating mode selected from a normal  
mode in which data transmission is performed at first time intervals and a temperature  
10 compensation mode in which data transmission is performed at second time intervals  
shorter than the first time intervals, and wherein said transmission controller  
determines whether to shift from the current one of the operating modes to the other  
operating mode by comparing the measured internal temperature of the tire with a  
predetermined threshold temperature.
6. The transmitter according to Claim 5, wherein said transmission controller selects the  
normal mode when the measured internal temperature of the tire is lower than a  
predetermined threshold temperature, said transmission controller selects the  
temperature compensation mode when the measured internal temperature of the tire is  
5 equal to or higher than the threshold temperature.

7. The transmitter according to Claim 6, wherein the temperature compensation mode includes a first temperature compensation mode and a second temperature compensation mode in which data transmission is performed at third time intervals shorter than the second time intervals in the first temperature compensation mode.
8. The transmitter according to Claim 7, wherein the threshold temperature includes a first threshold temperature and a second threshold temperature higher than the first threshold temperature, and said transmission controller selects the first temperature compensation mode when the measured internal temperature of the tire is equal to or  
5 higher than the first threshold temperature and lower than the second threshold temperature, and selects the second temperature compensation mode when the measured internal temperature of the tire is equal to or higher than the second threshold temperature.

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9. A tire condition monitoring apparatus located in a tire of a vehicle, the tire condition monitoring apparatus comprising:

a transmitter, the transmitter including:

5 a measurement device for measuring the condition of the tire, wherein the measured condition of the tire includes an internal temperature of the tire;

a transmission device performing wireless communication of data indicating the condition of the tire measured by the measurement device; and

10 a transmission controller, said transmission controller controls the transmission device in accordance with an operating mode selected from a normal mode, in which data transmission is performed a predetermined number of times in a cycle of a predetermined length of time, and a temperature compensation mode, in which data transmission is performed a number of times greater than said predetermined number of times in the same cycle, and wherein said transmission controller selects the operating mode by comparing the measured internal temperature of the tire with a predetermined threshold temperature; and

15 a receiver which receives data transmitted from said transmitter and which processes the received data.

10. The tire condition monitoring apparatus according to Claim 9, wherein said transmission controller selects the normal mode when the measured internal temperature of the tire is lower than the predetermined threshold temperature, said transmission controller selects the temperature compensation mode when the

- 5           measured internal temperature of the tire is equal to or higher than the threshold  
temperature
11.       The tire condition monitoring apparatus according to Claim 9, wherein the  
temperature compensation mode comprises a first temperature compensation mode  
and a second temperature compensation mode in which data transmission is  
performed a number of times greater than the number of times that data transmission  
5       is performed in the first temperature compensation mode.
12.       The tire condition monitoring apparatus according to Claim 10, wherein the threshold  
temperature includes a first threshold temperature and a second threshold temperature  
higher than the first threshold temperature, and said transmission controller selects the  
first temperature compensation mode when the measured internal temperature of the  
5       tire is equal to or higher than the first threshold temperature and lower than the second  
threshold temperature, and selects the second temperature compensation mode when  
the measured internal temperature of the tire is equal to or higher than the second  
threshold temperature.
13.       The tire condition monitoring apparatus according to Claim 12, wherein the receiver  
is connected to a notifying device for providing notification of the condition of the tire.

14. A tire condition monitoring apparatus located in a tire of a vehicle, the tire condition monitoring apparatus comprising:
- a transmitter, the transmitter including:
- a measurement device for measuring the condition of the tire, wherein the
- 5 measured condition of the tire includes an internal temperature of the tire;
- a transmission device performing wireless communication of data indicating the condition of the tire measured by the measurement device; and
- a transmission controller, said transmission controller controls the
- transmission device in accordance with an operating mode selected from a normal
- 10 mode in which data transmission is performed at first time intervals and a temperature compensation mode in which data transmission is performed at second time intervals shorter than the first time intervals, and wherein said transmission controller selects the operating mode by comparing the measured internal temperature of the tire with a predetermined threshold temperature; and
- 15 a receiver which receives data transmitted from said transmitter and which processes the received data.
15. The tire condition monitoring apparatus according to Claim 14, wherein said transmission controller selects the normal mode when the measured internal temperature of the tire is lower than a predetermined threshold temperature, and selects the temperature compensation mode when the measured internal temperature
- 5 of the tire is equal to or higher than the threshold temperature.

16. The tire condition monitoring apparatus according to Claim 15, wherein the temperature compensation mode includes a first temperature compensation mode and a second temperature compensation mode in which data transmission is performed at third time intervals shorter than the second time intervals.
17. The tire condition monitoring apparatus according to Claim 16, wherein the threshold temperature includes a first threshold temperature and a second threshold temperature higher than the first threshold temperature, wherein said transmission controller selects the first temperature compensation mode when the measured internal  
5 temperature of the tire is equal to or higher than the first threshold temperature and lower than the second threshold temperature, and selects the second temperature compensation mode when the measured internal temperature of the tire is equal to or higher than the second threshold temperature.
18. The tire condition monitoring apparatus according to Claim 14, wherein the receiver is connected to a notifying device for providing notification the condition of the tire.